

## **REMARKS**

Claims 1 to 18, 67 and 71 to 85 are currently pending. Reconsideration is respectfully requested in view of the following remarks, including the Third Rule 132 Declaration of Fred Durrenberger attached hereto and filed concurrently herewith.

### **I. THE OFFICE ACTION AND THE EXAMINER INTERVIEW**

The undersigned conducted an in person interview with the Examiner on November 16, 2006. The purpose of the interview was to discuss the status of the application and to explain to the Examiner certain of the issues raised by the Office Action of September 11, 2006. In the Office Action, the Examiner rejected all the pending claims under 35 U.S.C. § 102 as being anticipated by Kaneko et al. (US 3,635,856) as affirmed by the product literature of Mitsubishi-Kagaku. (see the Office Action, paragraphs 4 - 6).

In response to applicants' arguments, the Examiner stated that "Kaneko et al. clearly teach the incorporation of sucrose alkyl esters." (see the Office Action, paragraph 7). Applicants agree with the Examiner on this point.

Applicants also agree with the Examiner's observation that "...Kaneko et al. are silent on 'a mixture' of sucrose alkyl esters or 'a partially esterified' sucrose ester." *Id.* However, applicants respectfully submit that it is improper for the Examiner, after admitting that Kaneko is "silent" on this critical aspect of applicant's invention as now claimed, to "interpret the recited 'sucrose alkyl

esters' to mean a sucrose alkyl ester that has been fully esterified (100 wt% octa-substituted)." Such an interpretation is clearly contrary to established authority, and a proper reading of Kaneko et al. does not disclose, either expressly or inherently, all the requirements of the invention as now claimed. Accordingly, the pending claims define novel subject matter, and the evidence of unexpected results clearly establishes the unobviousness of the pending claims.

## **II. THE PENDING CLAIMS ARE PATENTABLE**

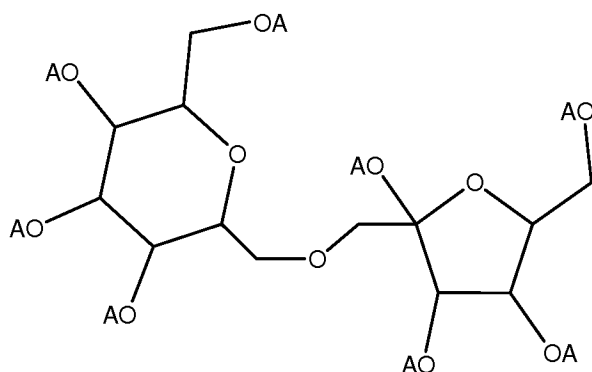
### **A. The Pending Claims Define Novel Subject Matter**

Claimed subject matter is anticipated only if "each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP § 2131 (citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). This standard is not met in the present case.

The present claims are directed to processes for extruding a resin-containing composition. The claims require that the composition contains saccharide ester. As the Examiner acknowledged during the interview, saccharide ester describes a genus of compounds. More specifically, the term "saccharide ester," without further limitation, describes a very large number

of compounds, including those in accordance with the following chemical formula in the claims:

Formula I



where “A” can be either H or an ester substituent.

Importantly, applicants have found that not all compounds in accordance with Formula (I) have the same effect in the claimed extrusion process. The claims therefore require that the extrudable mass have a minimum concentration of one subgenus of compound within the broad scope of Formula (I). More specifically, applicants have found that it is important for the claimed process to contain at least 50% by weight of compounds from the subgenus of octa-substituted esters, that is, all eight of the possible substitution sites represented by “A” are esterified. For the purposes of convenience, such compounds are referred to herein as “SE-8” compounds. It will be apparent to the Examiner that at least seven other subgenus of claims are within the scope of Formula (I), based on the extent of substitution. These seven different types of compounds will be referred to herein for convenience as SE-1, SE-2, SE-3 and so on, depending on the degree of substitution.

As noted by the Examiner, Kaneko discloses the use in a PVC extrusion process of a stabilizer composition. The stabilizer composition of Kaneko includes “at least one additive selected from the group consisting of (a) sucrose alkyl ester and (b) a semiester of an organic polybasic acid...” (Abstract). It is

acknowledged that the disclosure in Kaneko et al. of "sucrose alkyl ester" is a disclosure of the broad genus of saccharide esters in accordance with Formula (I) in the claims. However, as admitted by the Examiner, there is no disclosure of "a mixture' of sucrose alkyl esters." Thus, the Kaneko et al. disclosure encompasses literally thousands of mixtures of sucrose alkyl esters. For example, each of the 100 mixtures disclosed on the attached Table is only a small sampling of the potential mixtures within "sucrose alkyl ester" of Kaneko.

It is important to note that each of the compositions in the attached Table contains SE-8, but not a single one of the mixtures on the attached table meet the requirements of the pending claims. Although each of these mixtures contain octa-substituted sucrose esters (SE-8), not a single one of the mixtures contain at least 50% by weight of SE-8. Furthermore, it is possible to formulate an infinite number of additional compositions within the disclosure of Kaneko et al, all of which include SE-8 but none of which are within the scope of the invention as now claimed.

Thus, Kaneko et al. does not contain an express or an inherent disclosure of the claim limitation requiring that at least 50% of the saccharide ester compounds in the extrudable mass are SE-8 compounds. The Examiner's admission that there is no disclosure of mixtures comprising octa-substituted compounds confirms the absence of an express disclosure of a mixture comprising at least 50% SE-8. With respect to inherency, the attached Table illustrates the absence of an inherent disclosure. An inherent disclosure exists only if the requirement of the claim is always and invariably produced by following the teachings in the cited reference. Since a tremendous number of compositions that are not within the scope of the present invention can be produced within the disclosure of Kaneko et al., as illustrated by the Table, there is no possibility that the claim requirement will always and invariably be satisfied. The claims, therefore, define novel subject matter.

## **B. The Pending Claims Define Unobvious Subject Matter**

Kaneko et al. contains no teaching or suggestion that a minimum amount of octa-substituted saccharide ester should be used. The only mention in Kaneko expressly addressing the issue of ester substitution for the sucrose alkyl ester appears at column 4, lines 46-50:

The sucrose alkyl esters...include mono-esters or diesters of fatty acids... and mixtures thereof.

Kaneko contains no other express teaching regarding the use of sucrose ester compounds with a different degree of ester substitution.<sup>1</sup> Therefore, there is no suggestion or motivation in the information cited by Examiner to arrive at the invention as now claimed. Furthermore, the results achieved in accordance with the present invention are unexpected in view of Kaneko et al., as described in previous submissions and the attached third Declaration of Durrenberger.

## **III. SUBMISSION OF EXECUTED DECLARATIONS**

In addition to the attached third Declaration of Durrenberger, which is submitted in executed form, the executed versions of the first and second Durrenberger Declarations are also attached.

## **CONCLUSION**

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<sup>1</sup> In the previous response it was stated that Kaneko et al. teaches away from the present invention in that it states that “esters resulting from the complete esterification of organic acid have proven to be ineffective to prevent the shaped body to color in the early stages after molding.” (col. 3. line 73 – col. 4, line 1). For the sake of clarity, applicants note that this recited passage appears to be describing the semiester of an organic polybasic acid, which is a separate component of Kaneko et al.

In view of the foregoing remarks, applicants assert that the present claims are in condition for allowance and request that the Office issue a Notice of Allowance at the earliest possible date.

The Office is invited to contact applicants' undersigned counsel by telephone in order to further the prosecution of this case in any way.

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Respectfully submitted,

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